Mixing methodologies and paradigmatic commensurability

VIEWPOINT

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My first critical awareness of the tensions between different methodologies arose five years ago when preparing the materials for two undergraduate courses: 'Operations Management' and 'Strategy'. The former was concerned with explanation in which there is the assumption of causality; the operations environment could be designed in an optimal manner with predictable behaviour – the domain of those following an 'objectivist' epistemology. The latter relied upon interpretation and understanding, with the only certainty being that you would never know if you had a 'good' understanding and had made the best decision, but you would always know when you were wrong when everything fell apart, unless you were lucky – the domain of those following an 'constructivist' epistemology. The second event that resurrected this awareness of tensions occurred when attempting to write about the different approaches to organisational change and the use of 'soft' approaches to problem solving. Having been grounded in the work of Stafford Beer (Viable Systems Model [VSM]; Beer, 1979, 1985) and Raul Espejo (The Cybernetic Methodology; Espejo, 1988, 1990, 1992) I have found myself, over the last decade, tacitly using this work in a variety of organisational change programmes. Thus, in the process of writing about this, I have been challenged by the need to reconcile what are viewed as epistemological or paradigmatic incommensurabilities. This has attracted me to a series of discussions within JORS which appear to encapsulate this argument. Drawing upon these as well as other arguments, I will attempt to explain my own reconciliation of this debate.

The conventional approaches to change management can be viewed as 'hard problem' orientated; the problem is clearly established, with the concern being about which course of action should be adopted. The context of implementation is viewed as unproblematic. However, it is proposed here that the change management efforts, both large and small, entail a level of complexity which may be tacitly acknowledged and even addressed, but not in an effective manner. This complexity arises due to the social context within which change takes place and the presence of a variety of stakeholders. The inadequate handling of this complexity increases the likelihood of hindrances to change and a less than acceptable outcome. From the viewpoint of the management of change, this complexity raises itself as problematic, with the dilemma that it is not clear what the issues are. The revealed complexity associated with the intended change shifts its handling from a 'hard' orientation to a 'soft' orientation as discussed by Checkland (1981). This invites 'soft' orientated problem structuring methodologies (e.g. SSM, Critical Systems Thinking (CST), Cybernetic Methodology) as a complement to more conventional approaches.

However in doing so, this raises an issue pertaining to the change manager and whether it is commensurate to mix 'hard' and 'soft' approaches.

The incommensurability of methodologies is raised by those purists who argue that a given epistemological stance translates into an appropriate methodology (Jackson & Carter, 1991). Thus, the positivist tradition that is associated with 'hard' approaches contrasts with the phenomenological tradition of the 'soft' approaches. In other words., the way we think about society and how knowledge comes into being determines what we can observe

and know about society. Thus, it is inappropriate to use methodologies from different epistemological traditions together. This message has been clearly articulated by Burrell & Morgan (1979) who call for "paradigmatic closure" (ibid, 1979: 398) in the context of their description of four idealised sociological paradigms, where a paradigm is defined by its meta-theoretical assumptions and is thus exclusive. Indeed one summation from a two day "Alternative Paradigms Conference" held in 1989 was that "the participants agreed that homogenisation of paradigms should not and could not occur" (Dobbert, 1990: 288). Guba (1990: 370-1), in his summation of this conference, states that "paradigms... are basically incommensurable. That is, there probably does not exist some fundamental, rational framework to which all paradigms can be reduced so that conflicts and inconsistencies can be resolved", he also postulates that further discussion may give rise to "an as yet unimaginable paradigm (dare I say, metaparadigm?) (ibid).

However, the view that methodologies are incommensurate is questioned. Gioia & Pitre (1990), whilst acknowledging the incommensurability of core assumptions argue that the boundaries are "ill-defined and '*blurred*'" (ibid: 592). These boundaries offer bridges between paradigms under the assumption that a multiparadigm approach permits more comprehensive insights. Jackson (1987) distinguishes four modes of handling paradigms when using a methodology: the *pragmatist* ignores paradigmatic issues, placing emphasis upon utility. In contrast the *isolationist* sees no value in looking outside the preferred approach, whilst the *imperialist* regards the preferred approach as superior but will incorporate what is useful from elsewhere. The *pluralist* recognises that different approaches deal with different issues and collectively give an enriched insight suggesting the possibility of a meta-theory to theoretically embed this use of different approaches, a project initiated with the systemic analysis of O.R. methodologies by Jackson & Keys (1984).

This pluralist view has underpinned Flood and Jackson's (1991) development of Total Systems Intervention (TSI) (a "perhaps meta-methodology" (ibid: 197), who draw upon Habermas to ground the complementary use of methodologies with the aim being to maximally develop the potential of all individuals. The issue of incommensurability, whilst is not resolved and is criticised by Tsoukas (1993), is acknowledged as an ongoing project (Midgley, 1993). Furthermore, Midgley (1993) in response to a variety of criticisms of TSI by Tsoukas (1993) reveals his attempts to develop this project further

> You see, once one accepts that Critical Systems Thinking is a paradigm, then the problem disappears (Midgley, 1989b). A complementarist perspective no longer tries to contextualize other paradigms, but respects their most important elements, which are then represented in a new paradigm [see Midgley (1992) for more details]
>
> (Midgley, 1993: 304)

The Midgley (1992) paper argues for the explicit recognition of a meta-theory by pluralists if they are not to be accused of "atheoretical pragmatism" (ibid: 168), which is then presented as an explicit declaration of assumptions.

However, Jackson's Critical Systems Practice (CSP), developed from TSI, abandons any claim to "metaparadigmatic status" (Jackson, 2003a: 323)? Whilst "it makes no sense to break the link between paradigm and methodology" (ibid: 1300), Jackson iterates his advocacy of the use of different methodologies to provide

insight into the different worldviews embedded within the associated paradigms. Acknowledging the incommensurability of paradigms, Jackson suggests that this, itself, offers insight

> Critical systems practice, my version, accepts that paradigms, and their related methodologies, set forth incompatible philosophical assumptions and cannot, therefore, be integrated without something being lost. It seeks to manage paradigm diversity by allowing them to confront one another on the basis of 'reflective conversation'. No paradigm is allowed to escape unquestioned because it is continually confronted by the alternative rationales offered by others.
>
> (Jackson, 2009: 1298)

For Jackson, the decision about which methodology to use is a user decision: users "still have decisions to make that will draw on their own ethical positions, their own conceptions of right and wrong" (ibid). However, this raises questions about the authentic use of specific methodologies. The underlying assumption is that a paradigm governs the way one both views and knows reality and that to claim simultaneous adherence to another is not only not authentic, but exposes any insights to the very criticisms levelled by adherents of one to the other. This is different from recognising that other paradigms and derived insights are valid, but do not fit with personal beliefs.

Mingers & Brocklesby (1997: 490) argue for the use of a multimethodology on the basis

> that in order to make the most effective contribution in dealing with the richness of the real world, it is desirable to go beyond using a single (or, on occasions, more than one) methodology to generally combining several methodologies, in whole or in part, and possibly from different paradigms.
>
> (Mingers & Brocklesby, 1997: 489)

Furthermore, their argument is justified on "both on theoretical/philosophical grounds, and on the practical grounds that practitioners are increasingly doing this already". From a theoretical/philosophical perspective they argue that they overcome paradigm incommensurability by grounding their 'multimethodology' in what they view as a "new pluralist paradigm" (ibid: 506), grounded in Giddens' structuration theory and Bhaskar's critical realism. Indeed, "critical realism licences a multimethodological approach" (Mingers, 2006: 214). They frame their multimethodology within a world-view drawn from Habermas, which distinguishes between the material, social and personal (cognitive). This invites questions, which they explore, about whether people have personal paradigmatic preferences about how to view the world, grounded in their social – cultural experiences, and thus whether they can operate simultaneously within different paradigms, examined further by Kotiadis & Mingers (2006). However, taking these issue into consideration, their view of a methodology appears to more grounded in practice with methodology being defined as a "structured set of guidelines or activities" (ibid: 490) and later as a "structured set of methods or techniques" (Mingers, 2003: 559). In drawing attention to methods and techniques, the debate about paradigm incommensurability is perhaps dissolved.

Indeed, consideration of 'method' and 'technique' does not clarify this discussion. Pidd (2004: 204) succinctly draws attention to the concern of practitioners, that "methods and tools are appropriate". This leads to a mix of methods, in particular, those debated by some as incommensurate, i.e. quantitative and qualitative methods. This debate, as elucidated by Bryman (1984: 75), concerns the "tendency for philosophical [epistemological] issues and technical [method] issues to be treated simultaneously and occasionally to be confused", i.e. that specific methods are tied to specific epistemological traditions. Bryman identifies three occasions when these ties break down. The first relates to the selection of the most appropriate method for the problem under investigation. The

second concerns the use of qualitative methods as a prelude to a quantitative study. The third arises during 'triangulation' with the use of a quantitative / qualitative mix of methods. Moses & Knutsen (2007: 293) surmise that the "quantitative / qualitative divide, if it ever existed, is a relic of the past". However, Hanson's argues "that the quantitative / qualitative divide is without theoretical foundation. It is sustained by political rather than theoretical distinction" (Hanson, 2008: 106). In other words, there is no valid theoretical reason to avoid the combination of quantitative and qualitative methods.

This draws attention to the fundamental distinction between methodology (principles underpinning an approach) and method – technique (activity – procedure) as defined by Mingers & Brocklesby (1997), However, as noted by Jackson (2003), Mingers & Brocklesby (1997) conflate these, switching between multi-method / multi-methodology. Likewise, Mingers & Brocklesby (1997) describe both SSM and the VSM as methodologies, when the latter is a model.

The preceding account of the commensurability of mixing methodologies suggests that their incommensurability is generally accepted. This is despite the view of a group of practitioners, the pluralists, who believe that an enriched insight may arise through the mixing of methodologies. Nevertheless, the central issue relating to commensurability concerns the way we think about reality and how we go about engaging with it. The essence of the objective positivistic tradition is to reveal underlying structures, which implies that causal or 'generative' mechanisms are at work that follow the principles of 'natural laws'. Approaches will seek to discover these underlying structures and causal mechanisms, typically employing 'hard' (quantitative) methods involving 'experimentation'. The essence of the interpretivistic constructivist tradition is to establish meaning, which implies that 'objects' can be viewed in different ways. 'Natural laws' have no relevance. Approaches seek to reveal meaning through the personal accounts of different viewpoints and typically employ 'soft' (qualitative) methods. Since regularities (in-variances) can be recognised, then this suggests that the approaches of the objective positivistic tradition are applicable to adherents of the constructivist tradition. Indeed, within the organisational context, regularities are constructed in accordance with a reasoned view of how things function in order to achieve specific goals (e.g. manufacturing operations) (Checkland, 1983). To establish a hypothesis about a relationship to test for truth has no meaning from a subjectivist perspective, where the concern is with the production of a conceptual explanation which has validity. This leads to the notion that 'soft' approaches can subsume 'hard', but not vice-versa. Since the subjective nature of meaning has no validity within the positivistic tradition, this gives rise to an asymmetrical complementarity between these 'hard' and 'soft' approaches; the paradox that the positivist must abandon principles and convert to constructivism (Checkland & Howell, 2004). These approaches (methodologies) are distinct from the techniques (methods) used through which the observer engages with the phenomenon of interest.

In conclusion, I have found a need to clarify where I stand with regard to the mixing of methodologies. To this end I have offered an argument that reconciles, at least for me, the issue of mixing methodologies and the debate about commensurability. The mixing of methodologies is presented here as unproblematic and the notion of pluralism is dissolved. I reveal myself as a constructivist.

Acronyms

CSP	Critical Systems Practice
CST	Critical Systems Thinking
JORS	Journal of the Operational Research Society
O.R.	Operations Research
SSM	Soft Systems Methodology
TSI	Total Systems Intervention
VSM	Viable System Model

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